

REMARKS

Claims 1 and 4-15 are pending. By this Amendment, Claims 1 and 4-8 are amended and Claims 9-15 added. As support for the amendments can be found in the originally filed application, such as, Figures 1-10D, Applicants respectfully submit that no new matter is presented herein.

Allowed Claims

Applicants respectfully acknowledge and appreciate the indication by the Examiner that Claim 7 would be allowable if rewritten to overcome a rejection under 35 U.S.C. §112, second paragraph, and to include all of the features of a base claim and any intervening claims. In this regard, Applicants respectfully submit new independent Claim 9 corresponds to originally filed Claims 1, 4 and 7, which have been rewritten to address the rejection and includes all of the features recites in Claims 1 and 4, thereby placing Claim 9 in condition for allowance. New dependent Claims 10-13, which depend from Claim 9, correspond to originally filed dependent Claims 2-8 and should also be deemed allowable for at least the same reason Claim 9 is allowable, as well as for the additional subject matter recited therein.

Specification

The Specification is objected to for informalities therein. The Specification is amended herein to address the noted informalities in a manner responsive to the objection. Withdrawal of the objection is respectfully requested.

Drawings

The drawings are objected to for failing to comply with 37 C.F.R. §1.84(p)(5) for including reference numbers not presented in the Specification. Applicants note the Specification has been amended to include the reference numbers. Withdrawal of the objection is respectfully requested.

Claim Objections

Claims 2, 4 and 6 are objected to for informalities therein. The claims have been amended responsive to the objection. Withdrawal of the objection is respectfully requested.

Claim Rejections – 35 U.S.C. §112

Claims 1-2 and 4-8 are rejected under 35 U.S.C. §112, second paragraph. The claims have been amended responsive to the rejection. Withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 U.S.C. §102

Claims 1-2, 4-6 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Number 5,460,421 to Culbertson. Applicants respectfully traverse the rejection.

Claim 1 recites an apparatus for controlling the rigidity of a vehicle, the apparatus including a controller for controlling a buckling form, which controls the buckling form by adding to a member to be inputted to a collision load a lateral force in a direction substantially perpendicular to the collision load, the controller including frame restrictors which are provided on at least one portion of the hollow member in the direction substantially perpendicular to the collision load, and which restrict deformation of the

frame member in the direction substantially perpendicular to the collision load through the lateral force, and a restriction regulator which regulates a restriction state of the frame restrictors.

As is clear, the claimed invention restricts deformation of the frame member in the direction that is substantially perpendicular to the collision load through the lateral force to control the buckling form (deformation mode) of the frame. Specifically, only by controlling the restriction of a part of an antinode in the primary deformation mode in the direction substantially perpendicular to the collision load through the lateral force, the mode is changed into a secondary or additional mode.

On the contrary, Culbertson controls (restricts) the movement of the frame in the collision load direction. Culbertson teaches a compression resistant cylinder 10 having first and second telescoping cylinders 18 and 20, respectively. The first telescoping cylinder includes a pair of side walls 19, 19 and the second telescoping cylinder includes a pair of side walls 22, 22. Each of the sides walls, 19, 19, 22, and 22 include an aperture 34 defined in a lateral side face thereof that receives the plunger 33, 34 of the controller 26 (i.e., solenoid) therein. The absence of the plungers 33, 34 in the apertures 34 permits the side walls 19, 19 to slide past the side walls 22, 22 during a compressive force 28. However, the presence of the plungers 33, 34 in the apertures 34 prohibits the side walls 19, 19 from sliding past the slide walls 22, 22, resulting in the side walls 19, 19, and 22, 22 deforming into side walls 19', 19' and 22', 22' after absorbing the compressive force 28. See Figure 2 of Culbertson.

Therefore, when there is no restriction (OFF), the frame is slidably moved to control buckling, and when there is restriction (ON), the frame is crushed in an

accordion-like manner without sliding the frame. Specifically, Culbertson only controls whether buckling occurs. As such, Culbertson does not provide any disclosure or suggestion wherein switching a deformation mode in which deformation of the frame member in a direction that is substantially perpendicular to the collision load through a lateral force is restricted.

To qualify as prior art, each and every feature of a rejected claim must be disclosed or taught by the applied art of record. As explained above, Culbertson fails to disclose or suggest each and every feature recited by Claim 1. As such, Applicants respectfully submit Culbertson does not anticipate or render obvious that which is recited by Claim 1, wherein Claim 1 should also be deemed allowable over Culbertson.

Claims 4-8 depend from Claim 1. It is respectfully submitted that these dependent claims should also be deemed allowable over Culbertson for at least the same reasons Claim 1 is allowable, as well as for the additional subject matter recited therein.

Accordingly, withdrawal of the rejection is respectfully requested.

Claims 14-15

Regarding new Claims 14-15, Applicants note Claim 14 recites an apparatus for controlling the rigidity of a vehicle body, the apparatus includes, among other features a side frame member of the vehicle body, the side frame member having a first side frame member portion and a second side frame member portion, and a lateral force generator which controls buckling of the side frame member by adding a lateral force to a collision load to be applied to an intermediate member ***disposed directly between opposing end faces of the first and second side frame members.***

Applicants respectfully submit Culbertson fails to disclose or suggest such a feature.

Rather, Culbertson teaches a compression resistant cylinder 10 having first and second telescoping cylinders 18 and 20, respectively. The first telescoping cylinder includes a pair of side walls 19, 19 and the second telescoping cylinder includes a pair of side walls 22, 22. Each of the sides walls, 19, 19, 22, and 22 include an aperture 34 defined in a lateral side face thereof that receives the plunger 33, 34 of the controller 26 (i.e., solenoid) therein. The absence of the plungers 33, 34 in the apertures 34 permits the side walls 19, 19 to slide past the side walls 22, 22 during a compressive force 28. However, the presence of the plungers 33, 34 in the apertures 34 prohibits the side walls 19, 19 from sliding past the slide walls 22, 22, resulting in the side walls 19, 19, and 22, 22 deforming into side walls 19', 19' and 22', 22' after absorbing the compressive force 28. See Figure 2 of Culbertson. However, at no point is the controller 26 or any other feature of the Culbertson collapsible cylinders disposed between opposing lateral end faces of the side walls 19, 19 and 22, 22. Therefore, Culbertson clearly does not disclose or suggest a lateral force generator being disposed between opposing lateral end faces of the side walls 19, 19 and 22, 22.

To qualify as prior art, each and every feature of a rejected claim must be disclosed or taught by the applied art of record. As explained above, Culbertson fails to disclose or suggest each and every feature recited by Claim 14. As such, Applicants respectfully submit Culbertson does not anticipate or render obvious that which is recited by Claim 14, wherein Claim 14 should also be deemed allowable over Culbertson.

Claim 15 depends from Claim 14. It is respectfully submitted that Claim 15 should also be deemed allowable over Culbertson for at least the same reasons Claim 14 is allowable, as well as for the additional subject matter recited therein.

Rejoinder

As generic Claims 1 and 4 are believed to be allowable for the reasons provided above, Applicants respectfully request rejoinder of the non-elected subject matter as is provided by rule 37 C.F.R. 1.141.

Conclusion

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding objections and rejections, rejoinder of all non-elected subject matter, allowance of Claims 1 and 4-15, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 106145-00064.**

Respectfully submitted,

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Enclosures: Petition for Extension of Time
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